

Claims 1 - 19 are canceled.

20. (New) An optical system comprising:

a first optical element, said first optical element having a focal point,
a further optical element,
compensating elements,
said first optical element is connected to said further optical element by means of
a mounting and said compensating elements,
said first optical element and said further optical element defining an axial
direction,
said compensating elements being arranged in a region of said first optical
element providing thermal conductivity from said first optical element to said
compensating elements so that said compensating elements undergo
approximately a same temperature change as said first optical element, and
said compensating elements having a length in said axial direction and being
made from a material so as to displace said further optical element from said first
optical element in a same amount as a displacement of said focal point occurs
because of a heating of said first optical element.

21. (New) The optical system of claim 20, wherein at least one of said first and
further optical element comprises a lens.

22. (New) The optical system of claim 20, wherein said mounting comprises a
material of a density of at least $2.5 \times 10^3 \text{ kg/m}^3$.

23. (New) The optical system of claim 20, wherein said compensating elements have
a thermal expansion coefficient deviating from that of the mounting.

Schöppach
(Z) 99038 P US
10/047,150

2

24. (New) An optical system comprising:

a first optical element,

a further optical element,

compensating elements,

said first optical element being connected to said further optical element by means of a mounting and said compensating elements,

said first optical element and said further optical element defining an axial direction,

said compensating elements being arranged in a region of said first optical element providing thermal conductivity from said first optical element to said compensating elements so that said compensating elements undergo

approximately a same temperature change as said first optical element, wherein said compensating elements provide due to a heating of said first optical element a displacement of said second optical element from said first optical element in said axial direction, and

wherein said compensating elements comprise at least partly titanium.

25. (New) The optical system of claim 24, wherein at least one of said first and further optical element comprises a lens.

26 (New) The optical system of claim 24, wherein said mounting comprises a material of a density of at least $2.5 \times 10^3 \text{ kg/m}^3$.

27 (New) The optical system of claim 24, wherein said compensating elements have a thermal expansion coefficient deviating from that of the mounting.

28 (Withdrawn from Consideration by Election) An optical system comprising:

Schöppach
(Z) 99038 P US
10/047,150

3

a primary mirror,

a secondary mirror,

compensating elements,

said primary mirror being connected to said secondary mirror by means of a mounting and said compensating elements,

wherein said mounting comprises a telescope tube comprising an end facing said primary mirror and an end facing said secondary mirror, and

wherein said compensating elements comprise at least three feet that at one end carry said end of said telescope tube facing said primary mirror, and at another end are connected to said primary mirror.

29. (Withdrawn from Consideration by Election) The optical system of claim 28,

wherein said mounting comprises a material having a density of at most 2.5×10^3 kg/m³

30. (Withdrawn from Consideration by Election) The optical system of claim 28,

wherein said compensating elements have a thermal expansion coefficient deviating from that of said mounting.

31. (Withdrawn from Consideration by Election) The optical system of claim 28,

wherein said mounting comprises C/C SiC material.

32. (Withdrawn from Consideration by Election) An optical system comprising:

a primary mirror,

a secondary mirror,

compensating elements,

Schöppach
(Z) 99038 P US
10/047,150

4

said primary mirror being connected to said secondary mirror by means of a mounting and said compensating elements,
wherein said mounting comprises a telescope tube comprising an end facing said primary mirror and an end facing said secondary mirror, and
wherein said compensating elements comprise a ring that at one end carries said end of said telescope tube facing said primary mirror, and at another end is connected to said primary mirror.

33. (Withdrawn from Consideration by Election) The optical system of claim 32,
wherein said mounting comprises a material having a density of at most 2.5×10^3
 kg/m^3

34 (Withdrawn from Consideration by Election) The optical system of claim 32,
wherein said compensating elements have a thermal expansion coefficient deviating from that of said mounting.

35 (Withdrawn from Consideration by Election) The optical system of claim 32,
wherein said mounting comprises C/C SiC material.

Schöppach
(Z) 99038 P US
10/047,150

5